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BOSTON GAS COMPANY  
D.T.E. 03-40

TENTH SET OF INFORMATION REQUESTS OF THE DEPARTMENT OF  
TELECOMMUNICATIONS AND ENERGY TO  
BOSTON GAS COMPANY

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Pursuant to 220 C.M.R. § 1.06(6)(c), the Department of Telecommunications and Energy (“Department”) submits to Boston Gas Company (“Boston Gas” or “Company”) the following Information Requests:

INSTRUCTIONS

The following instructions apply to this set of Information Requests and all subsequent Information Requests issued by the Department to the Company in this proceeding.

1. Each request should be answered in writing on a separate, three-hole punch page with a recitation of the request, a reference to the request number, the docket number of the case and the name of the person responsible for the answer.
2. Do not wait for all answers to be completed before supplying answers. Provide the answers as they are completed.
3. These requests shall be deemed continuing so as to require further supplemental responses if the Company or its witness receives or generates additional information within the scope of these requests between the time of the original response and the close of the record in this proceeding.
4. The term “provide complete and detailed documentation” means:

Provide all data, assumptions and calculations relied upon. Provide the source of and basis for all data and assumptions employed. Include all studies, reports and planning

documents from which data, estimates or assumptions were drawn and support for how the data or assumptions were used in developing the projections or estimates. Provide and explain all supporting work-papers.

5. The term “document” is used in its broadest sense and includes, without limitation, writings, drawings, graphs, charts, photographs, phono-records, microfilm, microfiche, computer printouts, correspondence, handwritten notes, records or reports, bills, checks, articles from journals or other sources and other data compilations from which information can be obtained and all copies of such documents that bear notations or other markings that differentiate such copies from the original.
6. If any one of these requests is ambiguous, notify the Hearing Officer so that the request may be clarified prior to the preparation of a written response.
7. Please file one copy of the responses with Mary Cottrell, Secretary of the Department and on all parties; also submit one (1) copy of the responses to John J. Geary, Hearing Officer, one (1) copy of the responses to Sean Hanley, Assistant Director - Rates and Revenue Requirements Division, one (1) copy of the responses to Paul E. Osborne, Assistant Director - Rates and Revenue Requirements Division, two (2) copies of the responses to A. John Sullivan, Rates and Revenue Requirements Division, and one (1) copy of the responses to Andreas Thanos, Assistant Director, Gas Division.
8. In addition to filing, all non-proprietary responses should be submitted by e-mail to [dte.efiling@state.ma.us](mailto:dte.efiling@state.ma.us) and to the e-mail address of any party required to be served.

### INFORMATION REQUESTS

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| DTE 10-1 | Please indicate if any outside assistance or consultants were used by Boston Gas for the development of the Company’s marginal cost study. If yes, please identify the individuals or firms retained by the Company.                    |
| DTE 10-2 | Refer to Exh. KEDNE/ALS-2, Sch. 3, at 1. Please explain the meaning of the headings for the third and fourth columns (“Total Capacity Related \$ x 1000” and “Cost Index GDP IPD,” respectively).                                       |
| DTE 10-3 | Refer to Exh. KEDNE/ALS-2, Sch. 1, at 3. Please explain how column four (“Cost 2002 \$’s”) was calculated using 2002 dollars.   |
| DTE 10-4 | Refer to the prefiled testimony of Mr. Silvestrini at 8-9, stating: “[the Company’s Network Analysis] . . . projects a five-year load-growth pattern and assumes that the projected growth will occur on a uniform basis throughout the |

Company's system." Please discuss in detail whether the Company's past data on growth realizations is consistent with this projection of uniform growth.

- DTE 10-5 Refer to the prefiled testimony of Mr. Silvestrini at 10. Please explain in detail how the service costs shown in Sch. 2 are disaggregated by rate class. Provide all supporting Company data.
- DTE 10-6 Refer to the prefiled testimony of Mr. Silvestrini at 11-12; Schs. 3, 4, 5. Please provide all data covering the period 1978-2002 used by Mr. Silvestrini for regression analyses.
- DTE 10-7 Refer to the prefiled testimony of Mr. Silvestrini at 9; Sch. 1. Please explain why the Company used load growth projection instead of historical (*i.e.*, actually observed) data to estimate the unit cost per MMBtu of design day growth (or upgrades).
- DTE 10-8 Refer to the prefiled testimony of Mr. Silvestrini at 9; Sch. 1, at 3. Please indicate the weights and how they are derived in calculating the weighted cost per foot of main additions shown in line 13.
- DTE 10-9 Refer to the prefiled testimony of Mr. Silvestrini at 9; Sch. 1, at 4. Please explain in detail why the Company did not use the regression result for estimating the footage per design day demand, but instead used the "installed footage divided by increased design day demand" formula.
- DTE 10-10 Refer to the prefiled testimony of Mr. Silvestrini at Sch. 3, at 1. Please:
- (a) Discuss in detail what the Company aimed to achieve by regressing unit costs over the years these costs were expensed in.
  - (b) Discuss in detail whether the Company considered regressing expenses over demand for calculating marginal cost.
  - (c) Explain how the Company obtained the estimate of \$0.31 in line 25. Also, distinguish conceptually the trended cost per design day MMBtu (line 25) from the average cost per design day MMBtu (line 31).
  - (d) Explain how the Company obtained the estimate of \$10.63 in line 28.

- (e) Explain why the Company elected to choose the test year (i.e., year 2002) average cost as a representative figure for average cost per peak day MMBtu for the Company's historical operations.
- (f) Explain in detail how the Company calculated column 7 ("Time Series Estimate"). Are they simulated numbers based on the regression results?

DTE 10-11 Refer to the prefiled testimony of Mr. Silvestrini at 11. Please explain why the Company determined that the current 2002 test year average cost per design day MMBtu of \$0.83 most accurately reflects marginal capacity related capacity costs. Provide theoretical as well as empirical justification(s) for this conclusion.

DTE 10-12 Refer to the prefiled testimony of Mr. Silvestrini at Sch. 3, at 2. Please explain the source of data and its details in line 38 "Capacity Related Expenses."

DTE 10-13 Refer to the prefiled testimony of Mr. Silvestrini at 11-13.

- (a) Refer to Sch. 4, at 2-3. Explain how the Company allocated expenses to capacity, customer, and non-marginal categories. Provide any industry convention that may have been employed in this allocation.
- (b) Refer to Sch. 4, at 1. Explain how the Company obtained the numbers in column 6 ("Estimated 2002 Dollars"). Also, indicate the numbers used to calculate the average of \$63.06 shown at line 28.
- (c) Refer to Sch. 4, at 1. Discuss in detail what the Company aimed to achieve by regressing unit costs over the years these costs were expensed in.
- (d) Refer to Sch. 4, at 1. Did the Company consider regressing expenses over demand for calculating marginal cost?
- (e) Refer to Sch. 4, at 1, n.3. Explain in detail why the Company determined that the average costs for the period 1997-2002 are a reasonable prediction of marginal unit. What criteria did the Company use to determine the appropriate length of the period (1997-2002) in choosing average cost to reflect the marginal cost estimate?

- DTE 10-14 Refer to the prefiled testimony of Mr. Silvestrini at 13-14.
- (a) Refer to Sch. 5, at 1. Explain how the Company calculated column 8 (“Time Series Estimate”). Are they simulated numbers based on the regression results?
  - (b) Refer to Sch. 5, at 1. Explain why the Company determined that the average cost per customer in 2002 (\$57.64) is most representative of the Company’s current marginal cost for customer-related distribution costs. Explain why the Company did not select average cost figures for 1988-2002 or 1997-2002 (as was the case in Sch. 4) to represent marginal cost.
- DTE 10-15 Refer to Exh. KEDNE/PJM-2, supplemental information at 81-86. For each vendor listed on the sheet labeled “Strike Preparation Account (Activity 3237)” receiving more than \$1,000, please explain and justify the payment made to that vendor.
- DTE 10-16 Refer to the Company’s response to Information Request DTE 2-42. Please:
- (a) define “Base Rate” and “Heat Rate;” and
  - (b) describe how the Company determined for Customer No. 4361815820 (Rate R-1) a heat rate equal to 10.00 for each month from January through July.
- DTE 10-17 Refer to the Company’s responses to Information Request DTE 2-45. Please indicate the number of industrial customers for rate classes G-44 and G-54 that operated their plants daily and on a 24-hour basis during the test year.
- DTE 10-18 Please provide a schedule that shows:
- (a) daily actual billing degree days during the test year, indicating the monthly sub-totals and annual total;
  - (b) the corresponding normal billing degree days, indicating the monthly sub-totals and annual total; and
  - (c) the difference between (a) and (b).

- DTE 10-19 Refer to the Company's response to Information Request DTE 3-07. Please provide a copy of the Company's G-44 and G-54 complaint log for the months January through November of 2002.
- DTE 10-20 Refer to the Company's response to Information Request DTE 3-27. Please perform similar calculations for one R-1 and one R-2 customer in ranges (h), (i), and (j) as defined in Information Request DTE 3-26.
- DTE 10-21 Refer to the Company's response to Information Request DTE 3-29. Please perform similar calculations for one R-3 and one R-4 customer in ranges (i) and (j) as defined in information request DTE 3-28.
- DTE 10-22 Refer to the Company's response to Information Request DTE 4-17. Please reconcile the 1996 (547,000) and 2002 (573,000) number of customers indicated in Exh. KEDNE/JFB-1, at 9, with those shown in the Company's response to Information Request DTE 4-17.
- DTE 10-23 Refer to the Company's response to Information Request DTE 4-21. Please explain with supporting documentation, including any directives from the Department and other regulatory agencies, the reasons for the increases in annual capital investments for mains and services intended for "compliance" for years 2000 through 2002 compared to the annual levels of investments from 1996 through 1999.
- DTE 10-24 Refer to the Company's response to Information Request DTE 4-43. Please explain with supporting documentation the reasons for the annual deviations of the length of cast iron mains actually replaced compared to the length scheduled for replacement.